

~~SEE BOTTOM OF PAGE FOR ADDITIONAL SPECIAL CONTROLS, IF ANY~~

S-E-C-R-E-T

INFORMATION REPORT

PREPARED AND DISSEMINATED BY

CENTRAL INTELLIGENCE AGENCY

COUNTRY

USSR

SUBJECT

The System of Organizing the Production of New Weapons (Including Guided Missiles) Which is Prevalent in the USSR

PLACE ACQUIRED (By source)

DATE ACQUIRED (By source) DATE OF INFORMATION (Date or dates, on or between which, events or conditions described in report existed)

SOURCE DOCUMENTARY

This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

REPORT NO.

50X1

DATE DISTRIBUTED

9-JULY 56

50X1

NO. OF PAGES

NO. OF ENCLS.

SUPPLEMENT TO REPORT #

RESPONSIVE TO

50X1

THIS IS UNEVALUATED INFORMATION

50X1

On file in the CIA Library is a 20-page, English-language report entitled "The System of Organizing the Production of New Weapons (Including Guided Missiles) Which is Prevalent in the USSR".

- (a) Section No 1 - Suggestion of ideas applying to new types of weapons and the adoption of these ideas for practical results.
- (b) Section No 2 - Method of financing the war industry and the Ministry of Defense
- (c) Section No 3 - Resume of Section No 1.
- (d) Section No 4 - Special cases regarding the suggestion of ideas for a new type of weapon.
- (e) Section No 5 - Answers to a number of various questions *sic*.

The report is classified SECRET.

LIBRARY SUBJECT & AREA CODES # 32

2-02-0615 7/57

520.21 - N

174.2 - N

175.1 - N

S-E-C-R-E-T

DISTRIBUTION

STATE	ARMY	NAVY	AIR	FBI	EV	ORR		

50X1

Page Denied

Next 1 Page(s) In Document Denied

BEST COPY

Available

~~SECRET~~

~~The system of organizing the production of new weapons
(including guided missiles) which is prevalent in the USSR.~~

In this report an attempt will be made to explain the system most likely to prevail with reference to the organization of the production of new types of weapons. This study calls for the description of the entire production process, beginning with the birth of an idea and ending with the serial production of a new type of weapon.

Suggestion I Section No. 1.

3. ~~The birth~~ of ideas applying to new types of weapons and the adoption of these ideas for practical results receives much attention in the Soviet Union. The government does not confine such efforts to definite and narrow limits, but instead makes it possible for individuals and organizations to put valuable ideas into the practice.

~~this respect~~ Initiative in ~~excellence~~ is not only displayed at the top, but may also be taken at the bottom. Whether it be one way or the other, every idea, ~~born~~ from the time it is born until this idea is put into practice, must go through a definite channel of an organized system.

A. The usual sequence.

The High Command of the ~~Navy~~ USSR has a network of Naval Forces Scientific-Research Institutes. These institutes are of definite importance and work out scientific problems which happen to be within the sphere of the institute concerned. For instance, the NAVIGATION Scientific Research Institute for Naval Forces ~~Ship control~~ in LENINGRAD (NIIVK V.P.S.) or the Scientific-Research Institute for Artillery and Mine-Torpedo Armament of Naval Forces Vessels work out scientific problems exclusively related to their specialties. In practice this is done as follows: Once a year, the director of a Scientific Research Institute convenes the ~~institute~~ Scientific Council of his Institute to work out a plan of scientific research activities for the following year. If this Scientific Research Institute happens to be ~~involved~~ concerned with armament problems, the theoretical ~~and~~ elaboration of new types of weapons will be included in its plan of activities. After the plan has been drawn up, it is forwarded to the Commander in Chief of the Navy. At a meeting of the Scientific-Technical Council of the High

-1-

*DRR had
ORR cont*

~~SECRET~~

SECRET

Command, the plan is considered for its merits. On the staff of the Scientific-Technical Council are specialists from the competent Scientific-Research Institute, from the Chief Engineering Administration of the Navy, as well as from other administrations and divisions ~~interested~~ interested in the solution of such a problem. The plan provides for the types of research undertaken, time-limit of execution and types of material required. ~~After approximately three months of work, the plan is submitted to the Commander-in-Chief of the~~
~~High Command of the Navy~~
When the work plan has been approved by the ~~High Command of the Navy~~ Commander-in-Chief of the Navy and the Minister of Defense (since the Navy High Command is subordinate to the Defense Ministry), the plan is submitted to the government of the USSR for final approval. Once the plan has been ~~approved~~ by specialists on the staff of the Military ~~front~~ Branch of the USSR Council of Ministers, it is authorized by the government and turned over for execution to the High Command of the Navy. Along with the approval of the plan, all items of equipment requested therein are ~~then~~ allotted to the Scientific Research Institute charged with handling the problem.

In this connection there is another question which must be considered. ~~solution~~
The plan providing for ~~elaboration~~ of scientific problems by the Institute ~~contain~~ does not only ~~elaborate~~ those ideas which were evolved within the Institute itself. The initiative for the ~~elaboration~~ of one or another problem may come from the Naval Forces High Command and even from the government. These may be ideas obtained from all sorts of channels abroad (including also intelligence channels), ideas evolved in related USSR Academy of Science institutes, related academies and other Scientific-Research Institutes. In such a case the ~~elaboration~~, completion or application of the idea to definite requirements of the Navy is of special ~~great importance~~ and fulfillment of such a problem acquires the character of a special task. As a rule, a Scientific-Research Institute must direct the greatest attention to careful and most expeditious work on the ~~elaboration~~ of the most actual (urgent) problems (like for instance rocket weapons). As soon as one or another problem has theoretically been worked out by the Scientific-Research Institute, the Naval Forces High Command is notified. If the Scientific-Research Institute in question happens to be in

SECRET

SECRET

into difficulties in solving some aspects of the problem, it has to work out, some related Scientific-Research Institute of the Academy of Science or any other related Scientific-Research Institute or individual scientists are assigned to render assistance. The Naval Forces High Command decides immediately ~~shortened practical conditions~~ to ~~solve~~ the problem on a practical basis. Among other things, the Commander-in-Chief of the Naval Forces may order alteration of the time-limits (usually by shortening them) for ~~solving~~ the problem in line with ~~the~~ tactical-strategic or political demands of the moment. ~~in practice~~ The further practical realization of the problem worked out proceeds along the following pattern. The Commander-in-Chief of the Navy convenes the Scientific-Technical Council which considers the measures to be taken in finish ~~project~~ order to ~~solve~~ the problem in the best and most expeditious manner. After that, the Commander-in-Chief or his deputy for the competent branch commissions the Chief Engineering Administration to work out the technical project, prepare basic and ~~approximate~~ blueprints, set up specifications. Subordinate to the Chief Engineering Administration are project-construction bureaus (they are separated according to the different branches of technology and are located in various different cities of the country). Among them are top-secret project-construction bureaus the existence of which is known only to a very limited group of people. Project-Construction bureaus are the final executive organs charged with the completion of the technical project of ~~the~~. The Chief Engineering Administration is responsible for the completion of the technical project in as far as high quality performance and completion within time limits is concerned. Aside from setting up the technical project, preparing basic blueprints and specifications, these project-construction bureaus usually prepare working blueprints and establish the approximate cost for the completed project. As a rule, ~~an experimental model of a~~ new type of weapon is ~~built~~ ^{a Prototype specimen}. First of all, a model (a working model, if possible) is built. As a result of experimentation and research on the model, ~~and~~ the different elements of the project are made to fit properly and structural changes are made.

SECRET

SECRET**MAY**

It During these tests it ~~was~~ becomes evident also that some theoretical imperfections exist. If this is the case, the Scientific-Research Institute has to remove these miscalculations or errors. Production shops, where the models are made, may be found at the project-construction bureaus or they may operate independently subordinate to the Chief Engineering Administration. The Chief Engineering Administration of the Navy has a certain number (I do not know how many) of production-experimental laboratories (or production-experimental shops - I cannot say how they are called right now). The models are built and used for research in the production-experimental laboratories. Where there are no such production-experimental laboratories available [redacted] is quite unlikely), any suitable plant may be given the order to manufacture the model.

50X1

After the model has been built and research as well as performance data has proved to be satisfactory, construction of a prototype is launched. The working order governing the building of a prototype of a new type of weapon is the following in practice. The Chief Engineering Administration of the Navy is in possession of the following items used in the construction of a new type of weapon:

- a) Project,
- b) Blueprints, including working blueprints,
- c) Specifications (inventory of parts for the entire installation)
- d) Certificates on materials,
- e) Construction technology,
- f) Model test data,
- g) Approximate estimate of costs for construction and testing.

The Chief Engineering Administration works out the method of placing the order for construction of the prototype and submits its proposal for approval to the Commander-in-Chief of the Navy. The order for construction of the prototype may be placed as follows:

- a) With one of the plants subordinate to the Ministry of Defense (the best way),
- b) With one of the plants subordinate to the Ministry of Defense Industry,
- c) With one of the plants subordinate to any other industrial Ministry.

SECRET

SECRET

In this case a special secret shop may be set up at the plant, that is, either one or several.

- d) With different plants subordinate to the Ministry of Defense, Ministry of Defense Industry, any other industrial Ministry at special secret shops. This method is usually followed in cases where extremely complicated and top-secret orders, ~~are given~~, especially for a new type of weapon, are involved. Orders of this type may be placed in such a manner that the plants ~~executing~~ fulfilling the order may not even know the purpose for the parts or units they are ordered to build. This method provides for maximum security in keeping the issue of new types of weapons secret. It is the most commonly used method for placing orders considered secret by the government.
- f) Finally a new plant may be built. But this is not likely to happen where the construction of a prototype is involved.

The High Command of the Navy exercises the strictest control over the construction of all parts and units of a prototype and their assembly. For this purpose the Chief Engineering Administration maintains a section of ~~Military Representatives~~ usually called "Voyenpredy". Experienced specialists in the various technical fields are appointed ~~as~~ as Voyenpreds. In practice, the duties of Voyenpreds may be described as follows:

- a) One person alone may be assigned as Voyenpred and charged with the acceptance of a project, instead (or ~~separately~~) or mechanism as a whole,
- b) A number of Voyenpreds ~~may~~ may be charged with the acceptance of the entire project or mechanism. In this case every Voyenpred will be a specialist in a certain field and will be charged with the acceptance of certain parts or units of the installation.
- c) The Voyenpreds assigned to have such a task will first of all ~~thoroughly~~ thoroughly acquaint themselves with the project and the complete technical documentation of the prototype part of the prototype ~~they~~ charged to accept.
- d) After study of the project and its technical documentation, the Voyenpreds visit the plants where the parts and units of the prototype were made.

SECRET

~~SECRET~~

- e) At the manufacturing plant the Voyenpred's primary duty is to ~~maxim~~
~~max~~ ascertain that the quality of the materials used in the construction
of the prototype exactly meets the requirements of the approved certificates
on the materials. The Voyenpred may and should request cover certificates
on the materials from the plants supplying these materials (trade-mark,
chemical ~~material~~ composition, manufacturing process, mechanical and
chemical test and research data). If the plants supplying the materials
should have failed to provide certificates, ~~maxim~~ it is the Voyen-
pred's duty to request reliable and accurate laboratory tests and research
on the materials from the manufacturing plant or some other competent
laboratory. In case of some doubt, the Voyenpred may request laboratory
research and testing of the materials even ~~max~~ in cases where certificates
from the plants supplying them are available.
- f) The Voyenpred must verify the degree of qualification of workers
employed on the construction of the prototype (usually by checking their
qualification papers).
- g) The Voyenpred checks on the technical condition of machine tools and
production equipment used in the ~~manufacture~~ of the prototype.
- h) The Voyenpred makes sure that the technology in the manufacture of parts
and units of the prototype conforms to the authorized technical conditions.
- i) The Voyenpred makes the final acceptance of parts and units of the
prototype which belong to the category he is charged with. The acceptance
is made a matter of record by a statement to ~~the~~ ~~the~~
- j) The Voyenpred ~~maxim~~ is not authorized to permit any deviations
from the project and technical standards.

After completion of production of the prototype's parts and units,
the Voyenpreds proceed to make a complete assembly of the prototype.
The complete assembly takes place either at some suitable plant or also
(most frequently) at a specially erected secret shop at some plant. The
assembly of the prototype takes place under the guidance and ~~supervision~~
supervision ~~maxim~~ of the Chief designer of the project, designers, competent engi-
neers and the ~~maxim~~ originator of the project.

~~SECRET~~

SECRET

After the prototype has been finally assembled and checked, it is subjected to tests (in particular at a proving ground). These are carried out under the supervision of the originator of the project, the chief designer, a number of designers and representatives from the Military High Command.

If any defects or inaccuracies should appear during the tests, efforts will be made to establish their origin and nature. In this case the entire project may be submitted for further study to a Scientific-Research Institute or to a Project-Design Bureau depending on the origin and nature of the defect or ~~inaccuracy~~ imperfection. It may also happen that some manufacturing plant is responsible for a defect or imperfection but this is a rare occasion.

If test results proved satisfactory, mass production of the new type of weapon is taken into consideration.

In this case the Council of Ministers of the USSR makes the final decision and gives instructions for the apportionment of the necessary allotments. For mass production output of a new type of weapon, special secret shops may be set up in any number of plants of the Ministry of Defense, the Ministry of Defense Industry and other industrial Ministries.

Besides, highly specialized plants may be set up to build especially critical parts and units for a new type of weapon; this may be done especially in such a case where it happens to be of a unique and highly classified type. It may be noted that in the USSR the government refrains from putting out new types of a secret weapon at one of the same plants. It does so for security reasons.

Acceptance of finished parts, units and other finished products is made by Vozmepred (independent from the Technical Control Sections of - Otdalyaemicheskogo kontrolyya (OTK) of plants).

The Chief Engineering Administration (in our case the CEA of the Navy) is responsible for the high quality and within-time-limits production of the model, the prototype as well as the mass production of a new type of weapon.

REFINERABLE

SECRET

~~SECRET~~1) ~~Method of financing the war industry and~~~~the Ministry of Defense.~~General data.

Particularly serious attention is directed in the USSR to the method of how to finance the military industry. In this connection, it must be noted that the defense expenditures officially announced by the government of the USSR do not, by a long shot, correspond to facts. In reality, they are two and even more times higher than that. Defense appropriations for the year 1956 announced by the USSR government came to 102,5 billion Rubles, for instance. Actual military expenditures for the country will be much higher, however. The government keeps its clever juggling with the budget carefully concealed from foreign governments and the people of the USSR. This juggling consists of the following:

- 1) In the defense expenditures are included mainly expenditures for the maintenance of the Armed Forces - money, equipment allowances for Armed Forces personnel, transport-fodder allowances, fuel, communications, maintenance of lodgings, equipment, output and expenditure of munitions.
- 2) In computing military expenditures the value of the Ruble is many times greater than that of the Ruble officially circulated in the country. For instance, bread, for instance, the Defense Department pays at the rate of 10-12 kopeks per kilogram at a time when the retail price for bread is 1-1,5 Rubles per kilogram. The situation is about the same with regard to calculations of other types of supplies (clothing, fuel, equipment etc.).
- 3) Capital investments (output of basic elements, like for instance: warships, planes, tanks, ~~etc.~~ pieces of ordnance) are carried out not as allocations charged to defense but instead they are charged to funds allocated to the competent Ministries. As an example we shall take the Ministry for the Shipbuilding Industry of the USSR. Two groups (items) of expenditures are approved for this Ministry every year:

-

~~SECRET~~

SECRET

- a) One group (item) of overt normal expenditures connected with shipbuilding for the civilian economy.
- b) Another group (item) of special, secret expenditures connected with military shipbuilding.

Military shipbuilding is therefore not reflected in the estimate of expenditures for defense but is instead kept hidden in the Ministry of Shipbuilding Industry expenditures. (State Budget clause "Financing of the National Economy")

The same situation prevails also in cultural and scientific legislation, not only in industrial branches of the economy.

The military effort of the Soviet Union can be considered to be about twice as high as the military effort of the United States.

b) Financing of new types of weapons.

- 1) Scientific-Research Institutes provide the theoretical basis for new types of weapons and ~~also~~ receive financial allocations once every year. This means that everyone of these institutes receives budget allocations for scientific-research work ~~and~~ maintenance and maintenance of the institute once every year. If it turns out that ~~must be enlisted and additional testing~~ additional specialists ~~and equipment and materials required~~ for launching a new weapons project, the scientific-research institute concerned will get additional allocations. If necessary, the USSR Council of Ministers cuts the required amount from the budget of some civilian Ministry - of one and even of several, (for instance the Ministry of Consumer Goods Industries, the Ministry for Town and Village Construction etc.) Scientific-Research Institutes will never be limited in funds for theoretical work in the launching of new types of weapons projects.
- 2) The method of financing scientific-research institutes for theoretical research on new types of weapons also extends in all its aspects to Project-Design Bureaus which work out the technical proposals of a new type of weapon. These Project-Design Bureaus are never limited in funds for their new types of weapons projects.

SECRET

SECRET

LEGIB

a) A plant, which is subordinate to the Ministry of Defense, will always have funds allocated to it if it needs them, even where they have to cut off the budget of any other industrial Ministry.

b) Plants subordinate to the Ministry of Defense Industry can obtain funds by means of redistribution of funds within the Ministry (cutting funds off less important projects and reassign them for manufacture of a prototype of a new type of weapon). If such a redistribution is not feasible, this Ministry will get additional funds by means of an adequate cut in the budget of civilian Ministries.

FUNDS REQUIRED

e) For manufacture of prototypes (parts or units) at plants subordinate to some industrial Ministry, funds required for this purpose are largely raised by means of redistribution of funds within that Ministry. The necessary funds are drawn from less important ~~objects~~^{Property} and transferred switched towards manufacture of a new type of weapon.

The Ministry of Defense and the Ministry of Defense Industry contain budgets usually ~~expenditure~~ for general purpose (without indication of the nature of their utilization) special funds which can be drawn from in the event of ~~unforeseen~~ unforeseen projects coming up.

50X1

The distribution of allocations for the production of a prototype of a new type of weapon is made as follows. The Chief Engineering Administration of the Naval Forces (in our case) in working out the means and determining the sites where the order for the construction of the new type of weapon will be placed, simultaneously determines the approximate amount of expenditures required for the manufacture of parts and units of the prototype as a whole. The Chief Engineering Administration also calculates the expenditures required for testing the prototype. When the orders are awarded to the different manufacturing plants, every one of these plants also receives an estimate of expenditures according to the ~~amount~~^{production} ~~of~~ⁱⁿ charge of its volume of operations. Manufacturing Plants do not, as a rule, however, get cash funds into their hands directly.

SECRET

SECRET

that
Cash funds are held in the custody of the Ministry to which one or two
another manufacturing plant is subordinate. A manufacturing plant usually
does not receive the ~~entire~~ entire estimated amount until production of
the prototype has been started. Payment for it is made periodically as
fulfillment of the order progresses on its way. Periodically - once every
~~thirteen~~ ten days, once every two weeks and sometimes even only once a
month, progress and quality extent of readiness of the order is determined
at the manufacturing plant in the presence of the Voyempre and a statement
to that effect is formulated (akt protsentovki-certifikat of accomplishment).
This statement serves ~~as a guarantee for~~ the manufacturing plant as a means
to obtain cash funds. In order to be able to start on the production of the
prototype, the manufacturing plant obtains the necessary advance or it
uses its own turn-over funds. A final accounting with the manufacturing plant
is made once the order has been completely fulfilled. During manufacture
of a prototype all necessary precautions are taken to prevent delays in
the fulfillment of the order due to financial and supply reasons.

-31-

SECRET

~~Section No. III~~

III. Resumé of Section No. I.

SECRET

The method applied in the USSR in the organization of production of new types of weapons as described in Section No. I may be summarized as follows:

1) Theoretical problems involving new types of weapons are solved in the competent scientific-research institutes operating under one or other administrative system, like for instance: High Command of the Navy, Chief Administration of the Air Force, Chief Ordnance Administration and others. Solution of such problems is not only confined to scientific-research institutes operating under the Ministry of Defense system. They may be solved also by other scientific-research institutes competent in that field and even by some military schools.

2) The theoretical problem to be solved is examined at a meeting of the Scientific-Technical Council in the Ministry of Defense (in the competent chief Administration or command).

3) If the theoretical problem to be solved has been authorized, it is submitted to the competent chief engineering administration for further solution of the:

- a) Technical project,
- b) Basic and working blueprints,
- c) Specifications,
- d) Certificates on materials,
- e) Technology of Manufacture,
- f) Approximate cost of the project,

4) The entire technical solution of the problem is made by the competent Project-Design Bureaus which are directly subordinate to the competent chief engineering administration.

5) On the technical project a model of the new type of weapon is first made and tested.

6) If the technical project and the results of tests on the models proved satisfactory, the Chief Engineering Administration proceeds to place the order for the manufacture of a prototype of the new type of weapon.

SECRET

SECRET

- 7) The prototype of a new type of weapon is mainly built in sections at different plants with the purpose in mind that even in ~~unforeseen~~ the event that some section may fall into ~~hands~~ the hands of some foreign intelligence service, it would still be impossible to reconstruct the entire complex of the new type of weapon. Special secret shops are usually set up at manufacturing plants.
- 8) The chief engineering administration exercises control over quality and within-time-limits construction of the prototype of a new type of weapon by means of Voyempreds specially detailed to this project.
- 9) After the production of a prototype of a new type of weapon, it is ~~ILLEGIB~~ submitted to tests.
- 10) If testing of the prototype produced weapon will be mass-produced.
- 11) Responsibility for quality and with model, prototype as well as mass production of the new type lies directly with the chief engineering administration.
- 12) The government provides unlimited ~~funds~~ monetary funds for research design and manufacture of new types of weapons.

Section No. IV.SUGGESTION
IV. Special cases regarding the creation of ideasfor a new type of weapon.

As stated above, working out new types of weapons in the USSR are worked out departmental ~~channels~~ through ~~ministerial~~ channels: in scientific-research institutes, in project-design bureaus, in some special Higher Educational Institutions (VUZs), in special departments of Defense Ministry chief administrations and on special order of the government. However, the government of the USSR does not confine itself to these channels. It does not spare any means and does everything within its power to encourage and develop creative thought directed to the building of new types of weapons. Particularly, the government encourages ~~personal~~ personal initiative among the people toward this end. Let us assume that some director, designer, officer, student or cadet attending a

SECRET

SECRET

special school has worked out an idea or project for a new type of weapon or perfected a standard type of weapon. In that case he is free to ~~submit~~ ^{SEND} or ~~hand~~ take his project to the competent military department or else directly to the Ministry of Defense. At the Ministry of Defense a ~~central~~ control system has been established in order to make sure that projects of this type do not get lost in somebody's desk drawers or get misplaced somewhere but that instead they are checked as soon as possible. As a rule, such a project is submitted for consideration to the competent minister ^{department} of the Chief Engineering Administration. If it is held necessary, the project is examined by the Scientific-Technical Council in the Ministry of Defense. If it has been resolved that the project is worthwhile and merits further attention it is submitted (if necessary) for theoretical research and elaboration to ~~the~~ competent scientific-research institute and to the project-design bureau for preparation of technical documentation. The further handling of the project right up to the mass production stage follows the same sequence as outlined by me in Section I. Originators (authors) of projects receive monetary awards and frequently they are considerable, besides they are offered wide opportunities for advancement professionally and socially as well. In this connection, the following circumstances should not be left out of sight. In the Armed Forces (within small and large units, Navy vessels, divisions etc.) much stress is laid to the development of rationalization and invention among soldiers, sailors, sergeants, warrant or petty officers and officers.

Military units even maintain an office or section for rationalization and inventions, but where such offices do not exist rationalization suggestions and inventions are accepted for consideration by technical, engineering or other related sections. Military personnel always receive monetary awards for introduction of rationalization suggestions and inventions. The amount of incentives given depend on the importance and effectiveness of the rationalization suggestion or invention. Often it comes to a fairly large sum of money.

Last not least it must be remembered that project-design bureaus not only engage in working out technical projects of a new type of weapon

SECRET

~~SECRET~~

perfection of existing types of weapons. They may also be engaged in working out new types of weapons.

ILLEGIB

Section VV. Answers to a number of [redacted] ILLEGIB

4. a) The question of putting out a new type of

The Military Department (Voyennyy Otdyel) of [redacted] of the Communist Party of the Soviet Union, the Military Department of the Council of Ministers of the USSR, the heads of the Ministry of Defense of the USSR (Commander-in-Chief of the USSR Navy - Admiral OGRODKOV, Commander-in-Chief of the USSR Air Forces or the director of the Main Administration of the USSR Air Forces and so forth).

b) Staff officers on the High Command of the USSR Navy responsible

for research and development of new weapons systems are: the [redacted] of the Main Engineering Administration, the Scientific-Technical Board, the Scientific-Research Institutes. The Commander-in-Chief of the USSR Navy has the right to order new types of weapons to be developed and to do so without depending on other defense branches.

He may exercise his decisions with other defense branches only in the way of consultation, rapport and perfection ("to help the cause").

c) If the need arises for the creation of a new type of weapon, the Commander-in-Chief of the USSR Navy, jointly with the Minister of Defense, must submit his proposals to the Central Committee of the Communist Party of the Soviet Union and the Council of Ministers of the USSR (most probably only to a very limited group of people) for their approval and financing (if additional funds should be required).

d) Once the government has approved the program for the development of a new type of weapon, the Commander-in-Chief of the USSR Navy and the Minister of Defense are responsible for assuming control over the complete execution of this program.

e) Total control is exercised directly by the Main Engineering Administration of the USSR Navy.

~~SECRET~~

SECRET

5.

a) The theoretical groundwork for new types of weapons is carried out to the USSR Naval Forces Scientific-Research Institutes. I do not know present the present addresses of these ~~Scientific-Research Institutes~~ (except those which appear in the first section of this report). The Naval Forces Scientific Research Institutes are directly subordinate to the High Command of the Navy in the Ministry of Defense of the USSR. I am not acquainted with the number of these Institutes. I believe that in the Ministry of Defense of the USSR every branch of [redacted]

In for instance, I know for a fact that the Main Administration of the Air Force has its own Scientific-Research Institutes. The Scientific-Research Institutes are equipped with laboratories [redacted] experimentation shops. I do not know for sure whether all or not all Scientific-Research Institutes have production-experimentation shops. budget

Military Scientific-Research Institutes receive yearly allocations. If the yearly budget should be inadequate, they get additional allocations with difficulties. Military Scientific-Research Institutes in the USSR are not financed from budget allocations for defense. Expenditures for maintenance of military Scientific-Research Institutes are hidden under secret state budget items in the budget allocation for "Social-Cultural Measures". In practice, funds allotted for research in new types of weapons programs in the USSR are unlimited.

b) On the basis of the theoretical groundwork done by the Scientific-Research Institutes, the Project-Design Bureaus carry into effect the new type of weapon's technical project. In case of any doubts arising, a Project-Design Bureau may request the Scientific-Research Institute to elucidate on the problem in question. A Project-Design Bureau is not authorized to make any alterations in the theoretical design for a new type of weapon without prior coordination with the Scientific-Research Institute.

c) The office of the High Command of the USSR Navy has Project-Design Bureaus which are directly subordinate to the High Command of the Navy.

-16-

SECRET

SECRET

There are such Project-Design Bureaus located in ODESSA (in the Primorsky

ILLEGIB

Ulitsa area), in KRONSHTAD (address unknown). I do not believe that the

High Command of the USSR Navy has a [redacted]
the theoretical and technical project

ILLEGIB

from Scientific-Research Institutes and Project-Design Bureaus. Prototypes

of new types of weapons are built ordinarily on a [redacted]

the various parts are manufactured at different plants and machine shops.

Project-Design Bureaus (military) are financed in exactly the same way as
military Scientific-Research Institutes.

d) New type of weapon prototypes may be manufactured not only at plants
belonging to the Ministry of Defense Industry. They may be manufactured
at any plant belonging to any civilian Ministry. For security reasons,
the practice is not followed in the USSR to design and prototype a new
type of weapon at one and the same plant belonging to an industrial
Ministry. When a new naval weapons system is about to be built it is most
likely that plants belonging to the following systems will be selected for

the joint Ministry of Defense Industry, Ministry of the Navy, River Fleet
Ministry, Transport Machine-building Ministry, Ministry for the Shipbuilding
Industry. For instance, the "Krasnaya Sormova" plant in the Zhdanovka (near
the city of DONETZ), belonging to the Ministry for Transport Machine-building

produces the latest models of submarines [redacted] did in 1949 and 1950).

which, selected for manufacture of parts and units of a new type of weapon,
is not authorized to go off on its own and select sub-contractors for
manufacture of the various parts of the new type of weapon. If such a plant
is not able to manufacture one part or another, it has to notify the Vozro-
zheniye (Vozzemy Preistavite) or the Naval Forces Main Engineering Administra-
tion as quickly. Orders for the manufacture of parts and units for a
new type of weapon are distributed by the Naval Forces Main Engineering
Administration (Air Force Main Engineering Administration etc). A plant
itself does not have the right to distribute orders among other plants.

Allocations for the manufacture of new types of weapons in the USSR
are included among budget items for allocations to finance the material
and technical, social-cultural measures. Payment to the manufacturing plant

SECRET

SECRET

for fulfilment of the order is made to the extent of its fulfilment (in documents) in the manner indicated by me in the first part of this report.

where

ILLEGIB

e) It is not unlikely that the plant, ~~which~~ the parts and units for ~~for the~~ a new type of weapon have been made, will be assigned [redacted] production of this weapon. However, if a new type of weapon happens to be ~~which~~ top secret, its parts, units and their assembly will be made at various plants and in secret shops of various plants.

The manufacturing plant is not authorized to introduce amendments into the project for a prototype for a new type of weapon. If any questions or doubts regarding the project arise at the plant, the plant directors must report them to the military representative (voyenpred). The Voyenpred may assume personal responsibility for amendments (usually on technological grounds), provided they are not of a principal nature. In serious cases the Voyenpred must submit a report on the matter to his command at the Main Engineering Administration. At this level, the question of ~~whether~~ deciding whether ~~which~~ Scientific-Research Institute, Project-Design Bureaus) should make changes in the project, depends on the degree of importance of this decision.

b) I believe that the nature of development and control over the production for program of guided missiles in the Soviet Union is in principle identical with the procedure as I have outlined it in the present report. I am in agreement with the assumption that a ~~special~~ main administration, which deals with problems of development and production of guided missiles may have been set up in the Defense Ministry system. It is not unlikely that such a department operates on a clandestine basis within the "Commission for the Development of Atomic Energy" which was newly created in the USSR.

a) I do not consider it unlikely that a group of plants exist in the USSR which carry out the final assembly of parts and units of guided missiles and that these plants are subordinate to the Ministry of Defense or the Ministry of Defense Industry (the corresponding main administration in these industries).

b) If there exists a Main Administration (or Department) for production

SECRET

SECRET

of guided missiles, it will exercise complete control of the development and production of guided missiles. I presume that in practice this control will be carried out as follows:

- 1) Such a Main Administration will independently distribute orders for the manufacture of parts, units and assembly of the guided missile not only among plants subordinate to one Ministry, but also among plants subordinate to various Ministries.
- 2) * Main Administration for production of guided missiles may be directly subordinate a group (series) of plants charged with the manufacture of parts, units and assemblies of guided missiles.

In order to maintain secrecy over their manufacture these plants will be technologically dispersed in such a manner that foreign intelligence organizations will not be in a position to reconstruct the complex guided missile system by means of identifying one part or unit. Such a method, I believe, is the most likely one to be followed.

My personal opinion is that most likely: ILLEGIB

- 1) There is ~~now~~ in the USSR a separate administration or [] which deals solely with problems of development and production of missiles.
- 2) a group or series of plants are part of the system of this administration or department and these plants are subordinate ~~to each other~~ thereto.
- 3) These plants are technologically dispersed ~~independently~~ in order to make it impossible for anyone to reconstruct the whole missile system by means of identification of a single part or unit.
- 4) Persons engaged in the manufacture of parts of a guided missile ~~know nothing about it~~ are not always in a position to suspect the nature of their purpose.
- 5) Even Voyenprod do not get enough insight to enable them to reconstruct the whole guided missile system by means of one part or another.

In conclusion I want to say the following:

A few months ago "Krasnaya Zvezda" (Red Army paper) published a fantastic article under the heading "Blue Arrow". "Blue Arrow" is the name given to their latest jet fighter plane. Among other things, it

-10-

SECRET

SECRET

It was stated that the parts and units of this jet fighter were built at several plants and that none ~~of the workers~~ of the people employed in the production of these parts and units know anything about their purpose.

SECRET

20.